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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,199

06/02/2005

Conrardus Hubertus Joseph Theeuwen

ACM 2975 P1US

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12/03/2007

AKZO NOBEL INC.

INTELLECTUAL PROPERTY DEPARTMENT

120 WHITE PLAINS ROAD 3RD FLOOR

TARRTOWN, NY 10591

EXAMINER

KELLY, YOLANDA LYNNETTE

ART UNIT

PAPER NUMBER

4174

MAIL DATE

DELIVERY MODE

12/03/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,199	<b>Applicant(s)</b> THEEUWEN ET AL.	
	<b>Examiner</b> Y. Lynnette Kelly	<b>Art Unit</b> 4174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/23/2005 &amp; 10/14/2005</u> .                              | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it exceeds the 150-word limit. Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

3. Claims 4 and 5 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 4 further limits claim 1 to only included carboxymethyl cellulose (CMC) with a degree of polymerization (DP) of 1,500 or more. Since claim 1 includes 4 wt % of CMC with a DP of <1,500, Claim 4's limitation is improperly limits claim 1.

Claim 5 is objected to for being dependent upon improper dependent claim 4.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lange et al. US 6,593,468 in view of Nijhoff et al. US 3,418,133 and Rigler et al. US 3,928,252.

Lange discloses a CMC and method of making said CMC that exhibits improved absorbent properties without the use of toxins. Column 2, lines 40-47. Lange's CMC can be used for food, cosmetics and pharmaceuticals. Column 2, lines 59-64. Lange's viscoelastic properties are measured by a CS 50 model viscometer or a rotating viscometer at 25° C which shows a CMC that is a gel with an elastic component  $G'$  that is greater than the viscous component  $G''$  over a frequency range of 0.1 to  $10^2$  Hz. Column 11, lines 16-24; Figure 5. Lange's CMC which may be prepared from pinewood or linters cellulose contains cellulose or cellulose mixtures which have a DP of >1000 and an average degree of substitution (DS) between 0.2-1.5. Column 3, lines 50-57; Column 4, lines 42-67. Lange's suspension media is water and alkali that is combined by any suitable stirrer. Column 5, lines 10-23; Column 7, lines 55-67. Lange also teaches that other mixtures may be used as a suspension media and the CMC may be combined with an alginate, a starch or other natural polymers. Column 5, lines 10-23;

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Column 6, lines 9-23. Lange describes a process of making and claims a cellulose of high DP used in a food product; however, Lange does not specifically teach the use of this cellulose in a fruit-based product, the use of specific percentages of DP ranges, or the specific use of an oscillatory rheometer operating at a strain of 0.2 to measure  $G'$  and  $G''$ .

Nijhoff prepares an edible spread from water, an alkali metal salt and CMC.

Column 1, lines 30-47. The edible spread is made with CMC salts that may have a DS of 0.6 to 1. *Id.*; Example 6. In Table 1 Nijhoff illustrates the correlation between viscosity and DS. Wherein high viscosity CMC has a DP of  $>850$  and a viscosity of  $> 300$  cps. Column 1, line 67-Column 2, line 55. Differing CMC's may be combined with differing substances, including starch, and are mixed together in a variety of combinations to make salad dressings, spreadable butter like mixtures, pastry cream, marmalade jelly and fruit filling desserts. Examples 1-6. In Example 3, Nijhoff uses from 0.7 to 4.5 of the CMC solution to create a pastry cream. In Example 5, Nijhoff uses the CMC mixture to create an orange marmalade. This marmalade was made with CMC's which contain at least 1 wt% of a DP of  $>4,000$  (Table 2, CMC No. 14, 13 and 12), at least 4% of a DP of  $< 1,500$  (Table 2, CMC 2b, 3, 7 and 8). Example 5. In example 6, Nijhoff uses a mixture of medium viscosity and high viscosity CMC with a degree of separation of greater than 0.6 to make the fruit dessert shape retaining.

Column 5, lines 30-36. Since 1 centipoises (cps) equals 1 mPa·s, Nijhoff also teaches the use of a CMC with from 10,000 to 57,000 mPa·s.

Rigler prepares a food thickener from sodium carboxymethylcellulose in the presence of a halogen such as sodium chloride. Column 2, lines 25-35; Example I. Complete solubilization of the CMC is effected over high-speed mechanical stirring and effective results are obtained over a wide pH range of 2.4 to 12.6 in both hot and cold media. Column 3, line 66-Column 4, line 38. The viscosity of Rigler's thickener varies depending upon the differing medias used. Tests C-F. Rigler's thickener may be combined with fruits and used in a variety of foods, such as glazes, gravies, jams and jellies. Column 11, line 45-Column 12, line 26.

MPEP § 2144.05(II)(A) states that differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art. Nijhoff and Rigler disclose ranges of differing DP or viscosities of the CMC used to make the differing products taught in the examples. Substituting differences in concentration of the differing DP's of the CMC is an obvious variation on what is already generally known in order to achieve the optimum combination for the desired outcome. Furthermore, Lange suggests the use of one of two viscometers to measure  $G'$  and  $G''$ , as a result, it would have also been obvious for a person of ordinary skill in the art to use any appropriate viscometer at the appropriate strain to measure the viscoelastic properties of the product.

Since Lange, Nijhoff and Rigler all teach a CMC based food product that employs high DP cellulose mixed with an alkaline solution, it would have been obvious at the time this invention was made for a person of ordinary skill in the art to have created a fruit based CMC with high DP cellulose of the ranges claimed in an aqueous sodium

chloride solution which will inevitably result in a storage modulus G' exceeding the loss modulus G'' over a frequency range as suggested and taught by Lange.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. Lynnette Kelly whose telephone number is 571-270-3472. The examiner can normally be reached on Monday - Friday EST (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Tarazano can be reached on 571-272-1550. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gwendolyn Blackwell/  
Primary Examiner, AU 1794

Y. Lynnette Kelly  
Examiner  
Art Unit 4174

/Y. Lynnette Kelly/  
Examiner, Art Unit 4174

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